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ABSTRACT

1 A temperature control system includes a cabinet or system housing having a
2 plurality of drawers for containing intravenous solution bags or other medical items.
3 Each drawer is individually controlled, and generally includes a window and a
4 plurality of sub-compartments with each sub-compartment accommodating an
5 intravenous solution bag or other medical item. The drawers are each pivotable
6 relative to the system housing to permit access to the sub-compartments, while the
7 drawer windows enable the intravenous solution bags to be viewed during heating.
8 A heating element is typically disposed beneath each drawer bottom wall to apply
9 heat to walls of corresponding sub-compartments and evenly distribute heat to
10 intravenous solution bags contained within those sub-compartments. Each drawer
11 is associated with a controller that controls the heating element to apply heat to the
12 corresponding drawer sub-compartments in accordance with a comparison between
13 desired and measured temperatures associated with that drawer. Alternatively, the
14 system may include a single common controller to control the heating element of
15 each drawer based on the desired and measured temperatures associated with that
16 drawer. The temperature control system may be mounted on a wall, intravenous (IV)
17 pole, transportable cart or other suitable structure via a support mechanism. In
18 addition, several temperature control systems may be mounted in a stacked or other
19 arrangement on a transportable cart or other structure to provide heating capability
20 for numerous medical items.